Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte ERIC H. HAWKINS

Appeal No. 2003-1284
Application No. 09/887,179

ON BRIEF

Before COHEN, NASE, and BAHR, Administrative Patent Judges.
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 6 to 11, which are all of the claims pending in this application.[1]

We AFFIRM.

[1] Claim 11 was amended subsequent to the final rejection.

BACKGROUND

The appellant's invention relates generally to a multi-function pocket tool which includes adjustable pliers and other selected tools, and in particular tools for bicycle maintenance and repair (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Leatherman	4,238,862	Dec. 16, 1980
Chuang	5,711,042	Jan. 27, 1998

Claims 6 to 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Leatherman in view of Chuang.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejection, we make reference to the answer (Paper No. 14, mailed January 9, 2003) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 13, filed November 25, 2002) and reply brief (Paper No. 15, filed March 11, 2003) for the appellant's arguments thereagainst.

OPINION

In accordance with 37 CFR § 1.192(c)(7), we have selected claim 6 as the representative claim from the appellant's grouping of claims 6 to 11 to decide the appeal on the rejection under 35 U.S.C. § 103. See page 2 of the appellant's brief.

Claim 6 reads as follows:

> A folding multi-tool, comprising:
> (a) a pair of channel-shaped handles;
> (b) a pliers;
> (c) a spoke wrench; and
> (d) a bicycle chain tool,
> wherein the pliers, the spoke wrench, and the bicycle chain tool pivot into the channel-shaped handles.

In reaching our decision on the obviousness issue under 35 U.S.C. § 103 raised in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is

established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on 35 U.S.C. § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). Our reviewing court has repeatedly cautioned against employing hindsight by using the appellant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. See, e.g., Grain Processing Corp. v. American Maize-Products Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

With this as background, we analyze the prior art applied by the examiner in the rejection of the claims on appeal.

Teachings of Leatherman

Leatherman's invention relates to improvements in a folding pocket multiple tool having pliers and other frequently needed tools incorporated into a single instrument. Leatherman teaches (column 1, lines 8-63) that:

> Certain tools are often needed in situations where it is impractical or at least inconvenient to go prepared with a well equipped tool box. For example, hunters, fishermen, campers, bicyclists and even motorcyclists and automobilists have frequent need for a variety of common tools which are not available when the need arises. Even in the home workshop or portable tool box it is often convenient to provide a single multiple tool that will take the place of a considerable number or separate tools.
>
> A review of U.S. Pat. Nos. 1,474,592; 2,747,446; 1,174,132; 1,334,425; 3,044,081; 1,187,842; 2,561,682; 1,619,181; 858,003 and British Pat. Nos. 5,375 (1882); 21,369 (1894) and 15,859 (1904) shows that devices herefore proposed for such purposes have not been as satisfactory in regard to the performance and effectiveness of the individual tools as the present invention, nor have they included as many useful tools in as compact and novel an arrangement.
>
> Objects of the present invention are therefore to provide an improved multiple tool, to provide a multiple tool having both cross-jaw pliers and parallel-jaw pliers, to provide an instrument in which certain of the auxiliary tools are arranged to serve as handle extensions for increasing the leverage on the pliers, to provide novel and improved locking means for the pliers and to provide a pocket tool of the type described which is convenient to store and efficient in operation.
>
> SUMMARY OF THE INVENTION

> In the present construction a pair of channel shaped handles are foldable over plier jaws for compact carrying and storage. Auxilary [sic] parallel jaws are operable by the main jaws when desired. Locking means operable on both sets of jaws are provided to maintain a strong grip on an object when the handles are released. The handles also contain various other tools, some of which may be opened out to provide handle extensions for increasing the leverage on the pliers.
>
> In the preferred embodiments illustrated, the two pairs of plier jaws are mounted on one end of the handles while the other tools are arranged to pivot out to operative positions at the opposite ends of the handle members.
>
> The invention will be better understood and the foregoing and additional objects and advantages will be apparent from the following detailed description of the preferred embodiments illustrated in the accompanying drawings. Various changes may be made, however, in the details of construction and arrangement, substitution or addition of parts; and certain features may be used without others. All such modifications within the scope of the appended claims are included in the invention.

Leatherman's instrument comprises a plurality of tools contained within a pair of handles 10 and 11 when the handles are folded together in closed position as shown in solid lines in Figure 1. Each handle has a connected end 12 and a free end 13. Access to the various tools is obtained by spreading apart the free ends 13 of the handles as indicated by the arrows and the positions of the handles shown in broken lines as they are rotated away from each other toward the open positions indicated at 10A and 11A. In this opening movement each handle is rotated almost 180°.

The handle positions at 10A and 11A in Figure 1 correspond with the handle positions shown in Figure 2. Each handle 10 and 11 is of channel shape having a pair of side flanges 14 bent up on opposite edges of web portions 15. When the handles are folded together as shown in solid lines in Figure 1 the two channels face each other and enclose all of the tools contained in the instrument, for storage. When the handles are opened to their Figure 2 positions, the two channels face outward away from each other, making all the tools accessible, as shown. In this position the web portions 15 of the two channels are facing each other.

Transverse pivot pins 20 and 21 are mounted in the side flanges 14 at the connected ends 12 of the two channels. Cross-jaw pliers 22 are connected to the pivot pins 20 and 21. Each of these plier jaws has a nose end 23 with a flat gripping surface 24 intended primarily for gripping thin flat objects, and a shank end 25. Each shank end 25 is apertured for pivotal mounting on its associated pivot pin 20 or 21. The plier jaws are also equipped with wire cutter blades 26 and serrated concave gripping portions 27 shaped to grip securely round, square and hex-shaped objects. The two jaws are pivotally connected together by pivot 28 solely for rotation about the longitudinal axis of this pivot.

The instrument is also equipped with a pair of parallel jaw pliers jaws 35 each having a nose and 36 and a shank end 37. The nose ends may be of needle nose shape as shown or any other desired shape within the obvious constraints imposed by other parts of the instrument. The shank ends 37 are of channel shape to close over and slidingly receive the jaws of the cross-jaw pliers 22. Each parallel jaw nose end 36 contains a cavity or pocket 40 to receive the nose end 23 of a jaw of the cross-jaw pliers 22, the bases of the pockets 40 having cam surfaces 41 which are slidably engaged by the gripping edges 29 of the cross-jaws pliers. The close fit between the insides of the cavities 40 and the outsides of nose ends 23 of the cross jaw pliers prevents lateral motion of the parallel jaws 35.

As shown in Figure 2, a pivot pin 70 mounted in side flanges 14 at the free end 13 of handle 10 provides pivotal mounting means for other tools such as a knife blade 71, an awl 72, a large screwdriver bit 73, scissors 74, and spacer 98 (see Figure 3). The spacer 98 may be made of grindstone material suitable for sharpening fish hooks. Similarly, in the other handle 11 a pivot pin 75 mounts a saw/file blade 76, a small screwdriver bit 77, a medium screwdriver bit 99, a can and bottle opener 78, and a Phillips screwdriver bit 79 permanently magnetized to hold a screw thereon. Each tool is provided with a fingernail grip 80 for opening the tool or jaw out of its handle

and provision is made for accessability of these fingernail grips. In the handles 10 and 11 the side flanges 14 are cut away at 81 for this purpose.

One side flange 14 of each handle is marked with a scale 95 to provide a ruler as illustrated in Figure 13. The other side and the web could also be marked. To use the ruler, the cross-jaw plier jaws 22 are closed with the parallel jaws 35 in storage and the handles are aligned with adjacent ends abutting each other to provide a rule having a length equal to the combined length of both handles. In the pocket tool illustrated by way of example the length of the rule is seven and one-half inches.

The teachings of Chuang

Chuang's invention relates to a tool, and more particularly to a tool combination for bicycle. Chuang teaches (column 1, lines 8-13) that:

> Typical bicycles comprise a number of elements and parts that are required to be fixed and repaired by a number of tools. The user have [sic, has] to prepare a number of tools for engaging and disengaging the fastening members and for repairing the chains. It is inconvenient to prepare and to retain the tools in place.

Referring to the drawings, and initially to Figures 1 to 4, a tool combination comprises a first tool assembly as shown in Figure 1, and a second tool assembly as shown in Figure 2. The first tool assembly and the second tool assembly each includes a number of tools provided therein which are good enough for fixing and repairing all of

the elements and parts of the bicycle. The first tool assembly and the second tool assembly includes a securing device for securing the tool assemblies together such that the tool combination can be easily stored and carried.

As shown in Figure. 1, the first tool assembly includes a body 10 having a pair of ears 11, 12 extended therefrom. The ears 11, 12 each includes a hole 111, 121 formed therein for engaging with a bolt 21. The ear 12 includes a socket 122 for engaging with screws, bolts or nuts. The body 10 includes a dovetail slot 133 formed therein and includes a spanner 131 for engaging with the bicycle tire and for repairing the bicycle tire. The body 10 includes a cap 14 formed on one side portion and having a rib 141 (Figures 1 and 6) formed therein. A number of screw drivers 15, 16, 17, 18, 19, 20 include one end rotatably engaged on the bolt 21 so as to form the first tool assembly. A number of washers 151, 161, 171, 181, 191, 201 are engaged on the bolt 21 and engaged between the screw drivers 15, 16, 17, 18, 19, 20 respectively.

As shown in Figure 2, the second tool assembly includes a block 30 having a pair of ears 31, 32 extended therefrom. The ears 31, 32 each includes a hole 311, 321 formed therein for engaging with a bolt 35. The block 30 includes a dovetail 33 formed therein for engaging with the dovetail slot 133 of the body 10 of the first tool assembly (see Figure 5) such that the first tool assembly and the second tool assembly may be

secured together so as to form the tool combination. The block 30 includes a spanner 331 for engaging with the bicycle tire and for repairing the bicycle tire. The block 30 includes a housing 36 formed on one side portion and having a pin 362 (see Figures 2, 3 and 6) pivotably secured therein. The pin 362 has two ends engaged in the holes 361 formed in the housing 36. A knob 37 has a center hole 371 formed therein for engaging with the pin 362 such that the knob 37 is rotatable about the pin 362. The knob 37 includes a projection 372 (see Figures 2 and 6) formed thereon for engaging with the rib 141 of the body 10. A spring 363 is engaged on the pin 362 and is engaged between the block 30 and the knob 37 for biasing the projection 372 of the knob 37 to engage with the rib 141 of the body 10, such that the first tool assembly and the second assembly may be secured together.

As shown in Figures 2 and 4, a number of wrenches 46, 47, 48 and a screw driver 49 and a beam 40 are rotatably engaged on the bolt 35. The beam 40 includes a notch 42 formed therein for engaging with two screw drivers 44, 45 therein which are rotatably engaged on the bolt 35 so as to form the second tool assembly. A bolt 43 is threadedly engaged with the inner thread 44 of the beam 40 so as to form a typical tool for engaging with and for repairing chains of bicycles. The screw driver 49 includes two notches 492, 493 formed therein for engaging with and for repairing typical spokes.

Ascertainment of differences

After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of Leatherman and claim 6, it is our opinion that the differences are that Leatherman does not disclose a folding multi-tool having (1) a spoke wrench which pivots into the channel-shaped handles; and (2) a bicycle chain tool which pivots into the channel-shaped handles.

Level of ordinary skill in the art

The level of ordinary skill in the pertinent art must be resolved. Graham v. John Deere Co., id. Six factors are relevant to a determination of the level of ordinary skill: educational level of the inventor, type of problems encountered in the art, prior art solutions, rapidity of innovation, sophistication of technology, and educational level of active workers in the field. Environmental Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 697, 218 USPQ 865, 868-69 (Fed. Cir. 1983), cert. denied, 464 U.S. 1043 (1984) and Orthopedic Equipment Co. v. All Orthopedic Appliances, 707 F.2d 1376, 1382, 217 USPQ 1281, 1285 (Fed. Cir. 1983). However, a specific finding of a particular level of skill is not always necessary where, as here, the applied prior art itself reflects an

appropriate level. Chore-Time Equip., Inc. v. Cumberland, 713 F.2d 774, 779 n.2, 218 USPQ 673, 676 n.2 (Fed. Cir. 1983).

Determination of obviousness

With regard to the above-noted differences, it is our conclusion that it would have been obvious at the time the invention was made to a person of ordinary skill in the art to have modified the pocket multiple tool of Leatherman to have included common tools used by bicyclists such as a spoke wrench and a bicycle chain tool in view of (1) the teachings of Leatherman to provide a multiple tool having both cross-jaw pliers and parallel-jaw pliers and certain auxiliary tools, and that certain tools are often needed in situations where it is impractical or at least inconvenient to go prepared with a well equipped tool box, for example, hunters, fishermen, campers, **bicyclists** and even motorcyclists and automobilists have frequent need for a variety of common tools which are not available when the need arises; and (2) the teachings of Chuang that a tool combination for a bicycle includes both a spoke wrench and a bicycle chain tool. In making this modification to Leatherman, it is our view that one skilled in the art would have replaced one or more of Leatherman's auxiliary tools (i.e., knife blade 71, awl 72, large screwdriver bit 73, scissors 74, spacer 98, saw/file blade 76, small screwdriver bit 77, medium screwdriver bit 99, can and bottle opener 78 and

Phillips screwdriver bit 79) with a spoke wrench and a bicycle chain tool wherein the spoke wrench and the bicycle chain tool pivot into Leatherman's channel-shaped handles.

In view of above determination that the subject matter of claim 6 is obvious over the applied prior art, we affirm the decision of the examiner to reject claim 6 under 35 U.S.C. § 103. In accordance with the appellant's grouping of claims, claims 7 to 11 fall with claim 6. Thus, it follows that the decision of the examiner to reject claim s 7 to 11 under 35 U.S.C. § 103 is also affirmed.

Appellant's arguments

The appellant argues that a prima facie case of obviousness has not been set forth since there is no motivation or suggestion in the applied prior art to have modified Leatherman to arrive at the claimed invention. We do not agree. As set forth above, the teachings of the applied prior art clearly set forth the motivation and suggestion for an artisan to have modified Leatherman to arrive at the claimed invention. That motivation is to provide a multiple tool having both cross-jaw pliers and parallel-jaw pliers and certain of the auxiliary tools useful to bicyclists. In our view, Leatherman's multiple tool shown in the drawings is but one example of a multiple tool falling within the teachings of Leatherman. Leatherman's disclosure is suggestive of providing

different multiple tools for hunters, fishermen, campers, bicyclists motorcyclists and automobilists and Chuang clearly teaches that a bicyclist's combination tool should include both a spoke wrench and a bicycle chain tool as well as other bicycle tools. Accordingly, it is our determination that a prima facie case of obviousness has been set forth in the rejection under 35 U.S.C. § 103 before us in this appeal.

The appellant also argues the deficiencies of each reference on an individual basis, however, it is well settled that nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. See In re Merck & Co. Inc., 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

Lastly, the appellant argues that it is not physically possible to add a chain repair tool to Leatherman without removing all of the tools from one of the handles and thus makes the invention of Leatherman unsuitable for its intended purpose. There is no evidence in the record before us in this appeal that adding a chain repair tool to Leatherman requires removing all of the tools from one of the handles or that such a change makes the invention of Leatherman unsuitable for its intended purpose. Attorney argument in a brief cannot take the place of evidence. In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974). Moreover, even if all of the tools

from one of Leatherman's handles (e.g., knife blade 71, awl 72, large screwdriver bit 73, scissors 74, spacer 98) had to be removed to accommodate a chain repair tool, it is our view that the applied prior art suggests doing so and that such would not make the modified pocket tool of Leatherman unsuitable for its intended purpose (i.e., a multiple tool having both cross-jaw pliers and parallel-jaw pliers and certain auxiliary tools) since the modified pocket tool of Leatherman would still include both cross-jaw pliers and parallel-jaw pliers and a chain repair tool in one handle and a spoke wrench and other tools in the other handle.

CONCLUSION

To summarize, the decision of the examiner to reject claims 6 to 11 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

IRWIN CHARLES COHEN Administrative Patent Judge	)
JEFFREY V. NASE Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
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